

Electricity Fundamentals MCQ Question Answer

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Question: 1. Who discovered the relationship between magnetism and electricity that serves as the foundation for the theory of electromagnetism?

- Option A. Luigi Galvani
- Option B. Hans Christian Oersted
- Option C. Andre Ampere
- Option D. Charles Coulomb

Question: 2. Who demonstrated the theory of electromagnetic induction in 1831?

- Option A. Michael Faraday
- Option B. Andre Ampere
- Option C. James Clerk Maxwell
- Option D. Charles Coulomb

Question: 3. Who developed the electromagnetic theory of light in 1862?

- Option A. Heinrich Rudolf Hertz
- Option B. Wilhelm Rontgen
- Option C. James Clerk Maxwell
- Option D. Andre Ampere

Question: 4. Who discovered that a current-carrying conductor would move when placed in a magnetic field?

- Option A. Michael Faraday
- Option B. Andre Ampere
- Option C. Hans Christian Oersted
- Option D. Gustav Robert Kirchhoff

Question: 5. Who discovered the most important electrical effects which is the magnetic effect?

- Option A. Hans Christian Oersted
- Option B. Sir Charles Wheatstone
- Option C. Georg Ohm
- Option D. James Clerk Maxwell

Question: 6. Who demonstrated that there are magnetic effects around every current-carrying conductor and that current-carrying conductors can attract and repel each other just like magnets?

- Option A. Luigi Galvani
- Option B. Hans Christian Oersted
- Option C. Charles Coulomb
- Option D. Andre Ampere

Question: 7. Who discovered superconductivity in 1911?

- Option A. Kamerlingh Onnes
- Option B. Alex Muller
- Option C. GeoryBednorz
- Option D. Charles Coulomb

Question: 8. The magnitude of the induced emf in a coil is directly proportional to the rate of change of flux linkages. This is known as

- Option A. Joule's Law
- Option B. Faraday's second law of electromagnetic induction
- Option C. Faraday's first law of electromagnetic induction
- Option D. Coulomb's Law

Question: 9. Whenever a flux inking a coil or current changesa an emf is induced in it. This is known as

- Option A. Joule's Law
- Option B. Coulomb's Law
- Option C. Faraday's first law of electromagnetic induction
- Option D. Faraday's second law of electromagnetic induction

Question: 10. The force of attraction or repulsion between two magnetic poles is directly proportional to their strengths.

- Option A. Newton's first law
- Option B. Faraday's first law of electromagnetic induction
- Option C. Coulomb's first law
- Option D. Coulomb's second law

Question: 11. The force of attraction or repulsion between two magnetic poles is inversely proportional to the square of the distance between them. This is known as

- Option A. Newton's first law
- Option B. Faraday's first law of electromagnetic induction
- Option C. Coulomb's first law
- Option D. Coulomb's second law

Question: 12. Whenever a conductor cuts magnetic fluxa an emf is induced in it. This is known as

- Option A. Coulomb's law
- Option B. Joule's law
- Option C. Faraday's law
- Option D. Ohm's law

Question: 13. A law that states that the polarity of the induced voltage will oppose the change in magnetic flux causing the induction.

- Option A. Joule's law
- Option B. Faraday's law
- Option C. Coulomb's law
- Option D. Lenz' law

Question: 14. A law that states that the current in a thermionic diode varies directly with the three- halves power of anode voltage and inversely with the square of the distance between the electrodesa provided operating conditions are such that the current is limited only by the space charge.

- Option A. Hall's law
- Option B. Joule's law
- Option C. Child's law
- Option D. Coulomb's law

Question: 15. States that the ratio of the thermal conductivity is proportional to the absolute temperature for all metals.

- Option A. Wien's displacement law
- Option B. Hartleys law
- Option C. Hall's law
- Option D. Wiedemann Franz law

Question: 16. A law establishing the fact that the algebraic su of the rises and drops of the mmf around a closed loop of a magnetic circuit is equal to zero.

- Option A. Kirchhoff's circuital law
- Option B. Maxwell's circuital law
- Option C. Ampere's circuital law
- Option D. Coulomb's circuital law

Question: 17. The net electrical charge in an isolated system remains constant. This is known as

- Option A. Law of conservation of charge
- Option B. Coulomb's first law
- Option C. Coulomb's second law
- Option D. Law of conservation of energy

Question: 18. Lenz's law is the consequence of the law of conservation of

- Option A. Energy
- Option B. Charge
- Option C. Field lines
- Option D. Momentum

Question: 19. Lenz' law states that the direction of the induced emf and hence current

- Option A. Is determined by the rate of current flux
- Option B. Is found by the right hand rule

- Option C. Is found by the left hand rule
- Option D. Always opposes the cause producing it

Question: 20. If you hold the conductor with right hand so that the stretched thumb points in the direction of the current then encircling fingers will give the direction of magnetic lines of force round the conductor. This is known as

- Option A. Left hand cork screw rule
- Option B. Right hand cork screw rule
- Option C. Left hand rule
- Option D. Right hand rule

Question: 21. If the right handed bottle-opener cork screw is assumed to be along the conductor so as to advance in the direction of current flow, the motion of its handle will indicate the direction of magnetic flux produced around the conductor. This is known as

- Option A. Right hand rule
- Option B. Left hand rule
- Option C. Cork screw rule
- Option D. End rule

Question: 22. If on looking at any one end of a solenoid; the direction of current flow is found to be clockwise then the end under observation is a south pole. This is known as

- Option A. Right hand rule
- Option B. Left hand rule
- Option C. Cork screw rule
- Option D. End Rule

Question: 23. If the solenoid is gripped by the right hand with the fingers pointing the direction of current flow the outstretched thumb will then point the north pole. This is known as

- Option A. Right hand rule
- Option B. Helix rule
- Option C. End rule
- Option D. Cork screw rule

Question: 24. The process by which an emf and hence current is generated or induced in a conductor when there is a change in the magnetic flux linking the conductor is called

- Option A. Electromagnetic induction
- Option B. Mutual induction
- Option C. Faraday's law
- Option D. Electromagnetic interference

Question: 25. The emf induced in a coil due to the change of its own flux linked with it is called

- Option A. Mutually induced emf
- Option B. Dynamically induced emf

Option C. Statically induced emf

Option D. Self induced emf

Question: 26. The emf induced in a coil due to the changing current of another neighboring coil is called

Option A. Mutually induced emf

Option B. Self induced emf

Option C. Statically induced emf

Option D. Dynamically induced emf

Question: 27. When a conductor is stationary and the magnetic field is moving or changing the emf induced is called

Option A. Statically induced emf

Option B. Mutually induced emf

Option C. Self induced emf

Option D. Dynamically induced emf

Question: 28. The magnetic potential in a magnetic circuit can be measured in terms of

Option A. Mmf

Option B. Emf

Option C. Farad

Option D. Coulomb

Question: 29. A substance that attracts pieces iron

Option A. Conductor

Option B. Semiconductor

Option C. Magnet

Option D. All of the above

Question: 30. The phenomenon by which a subtracts pieces of iron

Option A. Magnetism

Option B. Electromagnetism

Option C. Naturalism

Option D. Materialism

Answer Sheet

1	B	
2	A	
3	C	
4	A	
5	A	
6	D	
7	A	
8	B	
9	C	
10	C	
11	D	
12	C	
13	D	
14	C	
15	D	
16	C	
17	A	
18	A	
19	D	
20	D	
21	C	
22	D	
23	B	
24	A	
25	D	
26	A	
27	A	
28	A	
29	C	
30	A	